

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2004 (06.05.2004)

PCT

(10) International Publication Number
WO 2004/038461 A2

(51) International Patent Classification⁷:

G02B

(21) International Application Number:

PCT/US2003/035441

(22) International Filing Date: 22 October 2003 (22.10.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/420,379

22 October 2002 (22.10.2002) US

(71) Applicants (*for all designated States except US*):
WILLIAM MARSH RICE UNIVERSITY [US/US];
6100 South Main, Houston, TX 77251-1892 (US). **BAY-**
LOR COLLEGE OF MEDICINE [US/US]; One Baylor
Plaza, Houston, TX 77030 (US).

(71) Applicants and

(72) Inventors: **SAGGAU, Peter** [US/US]; 5005 Yoakum,
Houston, TX 77006 (US). **BANSAL, Vivek** [US/US];
7617 Cambridge, Houston, TX 77054 (US). **PATEL,**
Saumil [US/US]; 4818 East Laureldale, Houston, TX
77041 (US).

(74) Agents: **WATKINS, Marcella, D. et al.**; Conley Rose, P.
C., P. O. Box 3267, Houston, TX 77235-3267 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

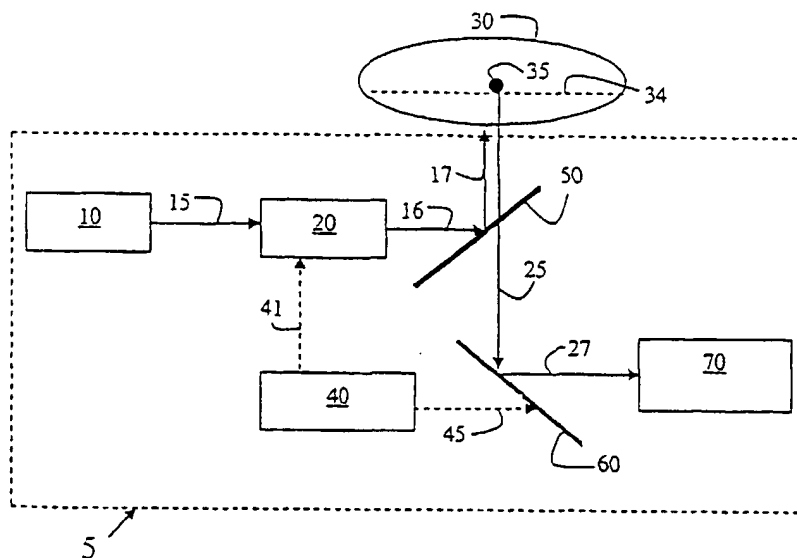
(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

[Continued on next page]

(54) Title: RANDOM ACCESS HIGH-SPEED CONFOCAL MICROSCOPE



(57) Abstract: Disclosed herein is a confocal imaging system for imaging a specimen. The system comprises a light source, a light deflector capable of positioning a beam of light produced by the light source at one of a series of predetermined points on the specimen, an addressable spatial filter capable of selectively filtering light from the specimen, and a central processing unit capable of providing selective position control to the light deflector and the addressable spatial filter.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.